

FRIEDMAN & BRUYA, INC.**ENVIRONMENTAL CHEMISTS**

Date of Report: May 17, 1994
Date Received: May 11, 1994
Project: 3350 Soil Retest, PO #M34495
Date Samples Extracted: May 12, 1994
Date Extracts Analyzed: May 12, 1994

**RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLE
FOR PCB AS AROCHLOR 1254 BY GC/ECD
(MODIFIED 8080)**

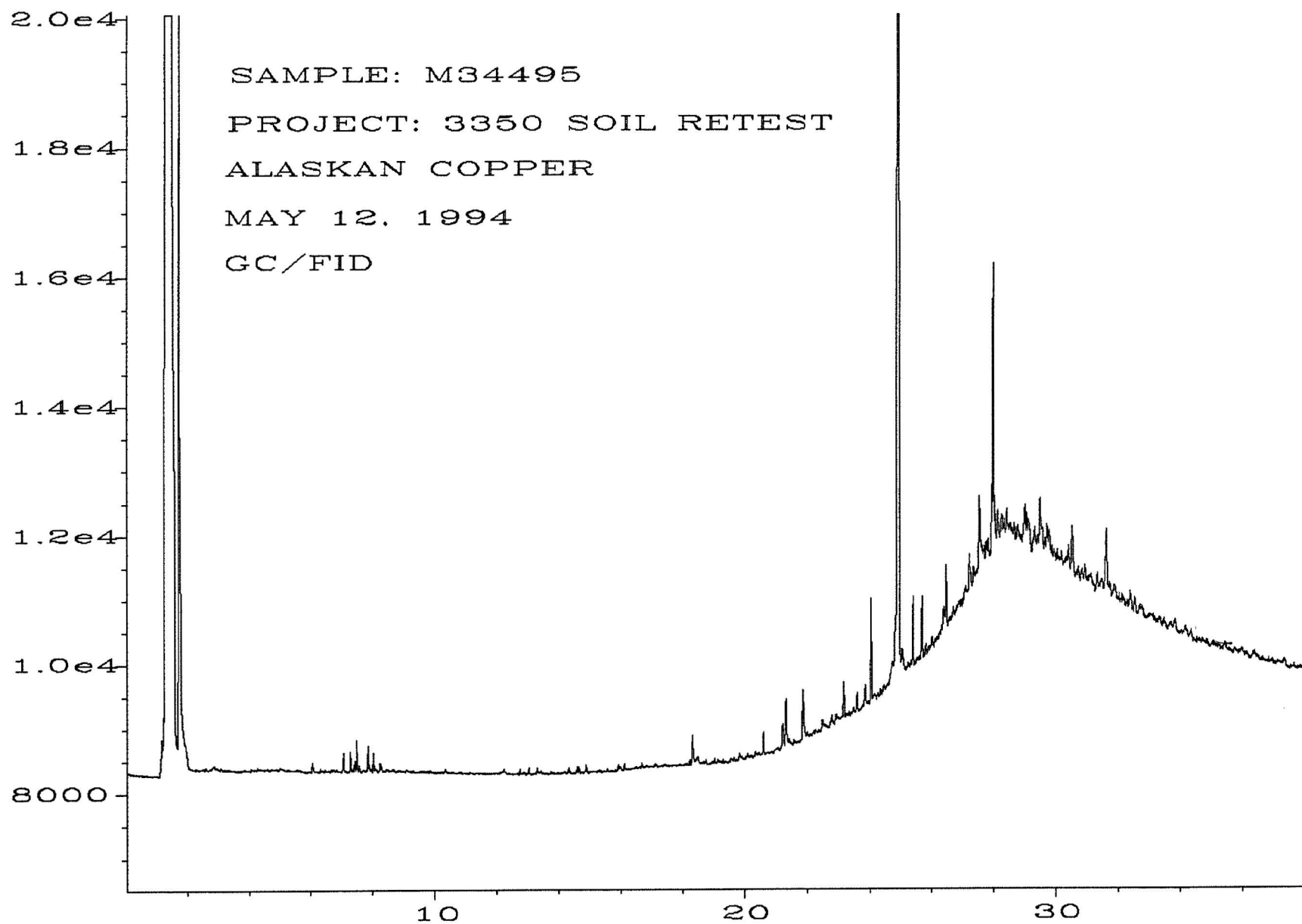
Results Reported as $\mu\text{g/g}$ (ppm)

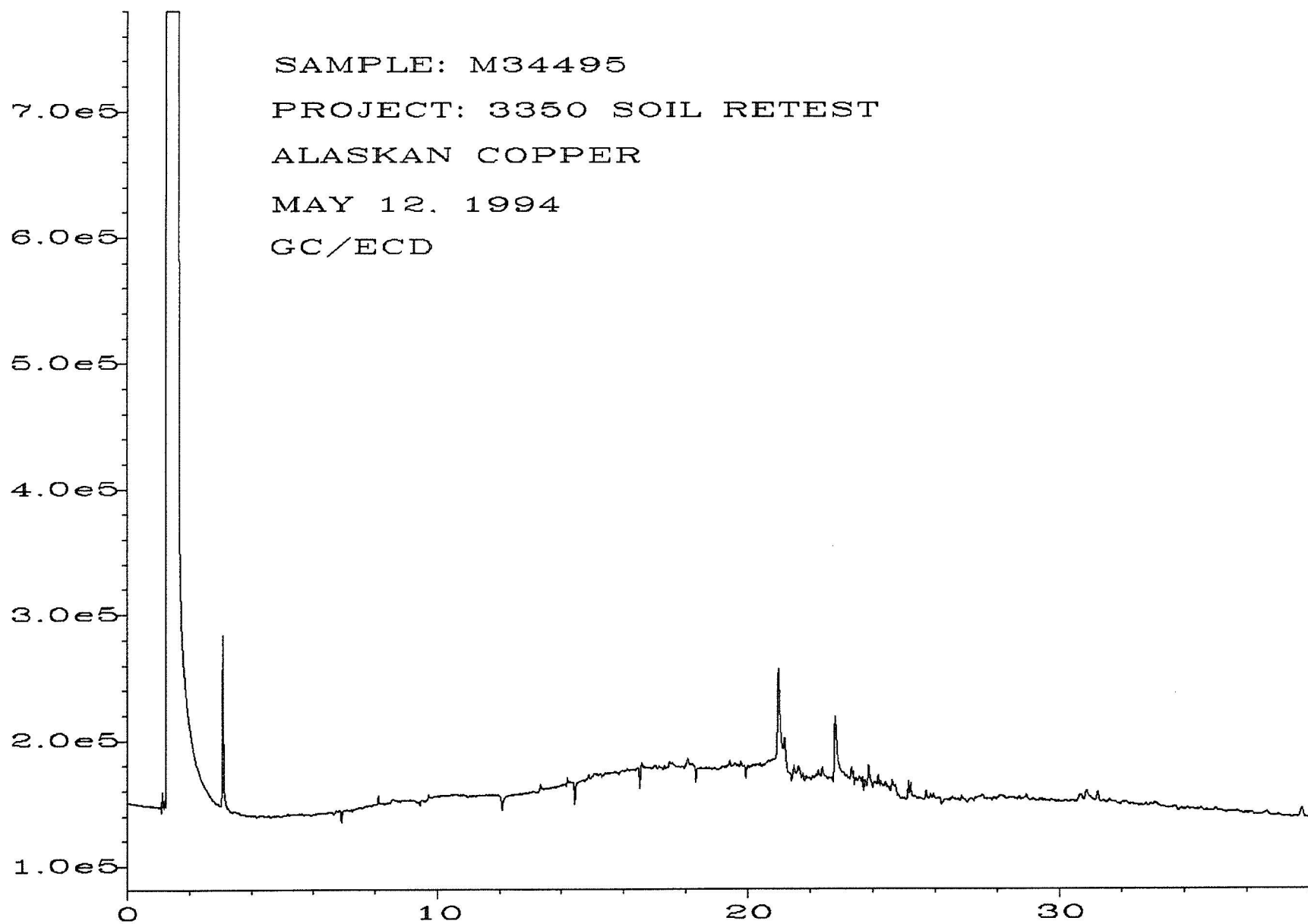
<u>Sample ID</u>	<u>PCB</u>	<u>Internal Standard</u> (% Recovery)
M34495	<0.1	120%
<u>Quality Assurance</u>		
Blank	<0.1	97%
M34495 (Duplicate)	<0.1	125%
M34495 (Matrix Spike) % Recovery	114%	141%
M34495 (Matrix Spike Duplicate) % Recovery	116%	146%
Spike Blank % Recovery	101%	134%
Spike Level	4	

OS.BTB.A
05/11/94
2:40

Send Report To: ALASKAN COPPER WORKS Contact GERALD Thompson
Company ALASKAN COPPER WORKS
Address 628 HAYWARD ST
City, State, Zip SEATTLE WA. 98023
Phone # (206) 623-3800 X218 Date 5-11-84

[illegible]AKC-0013249





FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Andrew John Friedman
James E. Bruya, Ph.D.
(206) 285-8282

3012 16th Avenue West
Seattle, WA 98119-2029
FAX: (206) 283-5044

DUPLICATE COPY

May 17, 1994

INVOICE # 94ACU0517-1

Alaskan Copper Works
628 South Hanford
Seattle, WA 98134

RE: Project 3350 Soil Retest, PO #M34495: Results of testing requested by Gerry Thompson, Project Leader for material submitted on May 11, 1994.

1 soil sample characterized by capillary gas chromatography @ \$125 per sample	\$ 125.00
1 soil sample analyzed for Total PCB as Arochlor 1254 by GC/ECD @ \$85 per sample	<u>85.00</u>
Amount Due	\$ 210.00

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FAX: (206) 283-5044

May 17, 1994

Gerry Thompson, Project Leader
Alaskan Copper Works
628 South Hanford
Seattle, WA 98134

Dear Mr. Thompson:

Enclosed are the results from the testing of material submitted on May 11, 1994 from Project 3350 Soil Retest, PO #M34495.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,



Bradley T. Benson
Chemist

BTB/dp

Enclosures

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**RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLE
FOR FINGERPRINT CHARACTERIZATION
BY CAPILLARY GAS CHROMATOGRAPHY
USING A FLAME IONIZATION DETECTOR (FID)
AND ELECTRON CAPTURE DETECTOR (ECD)**

Sample ID

GC Characterization

M34495

The GC trace using the flame ionization detector (FID) showed the presence of high boiling compounds. The patterns displayed by these peaks are indicative of motor oil or transformer oil. The high boiling compounds appeared as a broad hump eluting from *n*-C₂₀ to beyond *n*-C₃₅ showing a maximum near *n*-C₂₈.

The large peak seen near 25 minutes on the GC/FID trace is pentacosane, added as a quality assurance check for this GC analysis.